

State Injury Indicators



Traumatic Brain Injury Indicators (TBI) Fatalities

Category:	Traumatic Brain Injury Indicators (TBI)
Demographic Group:	All residents.
Numerator:	<p>Deaths with any of the following ICD-10 codes in any field of the multiple cause of death file: S01.0–S01.9 (Open wound of head), S02.0, S02.1, S02.3, S02.7–S02.9 (Fracture of skull and facial bones), S04.0 (Injury of optic nerve and pathways), S06.0–S06.9 (Intracranial injury), S07.0, S07.1, S07.8, S07.9 (Crushing injury of head), S09.7–S09.9 (Other and unspecified injuries of head), T01.0* (Open wounds involving head with neck), T02.0* (Fractures involving head with neck), T04.0* (Crushing injuries involving head with neck), T06.0* (Injuries of brain and cranial nerves with injuries of nerves and spinal cord at neck level), T90.1, T90.2, T90.4, T90.5, T90.8, T90.9 (Sequelae of injuries of head)</p> <p>* These codes are not considered valid in the US</p>
Denominator:	Midyear population for the calendar year under surveillance.
Measures of Frequency:	Annual number of deaths. Annual mortality rate—crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population).
Period for Case Definition:	Calendar year.
Background:	Of the approximately 1.6 million people who sustained a TBI in the United States in 2003, an estimated 51,000 died; 290,000 were hospitalized; and 1.2 million were treated and released from an emergency department.*
Limitations of Indicator:	Injuries severe enough to result in death represent only a small proportion of the overall burden of injury. An evaluation of only these injuries may not present an accurate picture of the causes of less-severe injuries.
Data Resources:	Death certificate data from vital statistics agencies (numerator) and population estimates from the U.S. Census Bureau or suitable alternative (denominator).
Limitations of Data Resources:	The accuracy of indicators based on codes found in vital statistics data is limited by the completeness and quality of coding. The overall completeness of external cause coding on death data is uniformly high. Coding criteria specify that all cases of injury death must contain an injury code in the underlying-cause-of-death field.
Healthy People 2010 Objectives:	No objective.
CDC's Health Protection Goals:	Healthy People in Every Stage of Life: Crosscutting Healthy People in Healthy Places: Crosscutting

*Langlois JA, Rutland-Brown W, Thomas KE, Xi YL. Incidence of traumatic brain injury in the United States, 2003. J Head Trauma Rehabil 2006;21:544-8.